1. What's new in PMS?

What seems to work best for PMS at the present time?

Submitted by:
D.A. Buie, MD
Victoria, British Columbia

Pharmacologic and non-pharmacologic agents have been proposed for the treatment of premenstrual syndrome (PMS).

Of the non-pharmacologic treatments available, only calcium supplementation (1,200 mg/day) and cognitive/behavioural therapy have been shown to be effective in evidence-based assessments.

Of the pharmacologic options, selective serotonin reuptake inhibitor therapy, either during the luteal phase or throughout the cycle, have proven effective. Fluoxetine and sertraline have been studied the most.

Recent studies also support the efficacy of ovulation suppression with an oral contraceptive containing drospirenone instead of 19 non-testosterone-derived progestins.

Suggested Reading
Rapkin A: Review of treatment of premenstrual syndrome & premenstrual dysphoric disorder. Psychoneuroendocrinology 2003; 28(Suppl 3):39-53.

Answered by:
Denise Black, MD, FRCSC
Obstetrician/gynecologist
Women's Hospital, Health Sciences Centre
Winnipeg, Manitoba

This month's topics:

2. Dealing with obesity

What can the GP really do for obese patients?

Submitted by:
W.C. Acker, MD
Halifax, Nova Scotia

While obesity is a chronic medical condition with increasing prevalence, treatments are few and hard for patients to follow. I have found the following helpful:

- Never blame the patient. Often, because of genetic makeup, obese patients have to work so much harder to maintain normal weight than lean people.
- Look for easily correctable factors (*e.g.*, hypothyroidism, drugs that cause weight gain, obstructive sleep apnea).
- Look for conditions requiring specialized treatments (*e.g.*, binge eating disorder, Cushing's disease).
- Encourage reasonable goals. Do not use ideal body weight tables anymore, but rather a 10% to 15% weight loss and maintenance goal.
- Encourage the patient to think of obesity as a chronic medical condition that requires long-term intervention. An analogy with hypertension might help. When patients stop taking their blood pressure pills, hypertension returns; similarly when one stops diet and exercise, obesity returns.

There are only three long-term interventions available for the treatment of obesity:

1. Lifestyle modification (*i.e.*, diet and exercise): Encourage patients to reframe failures and learn from them. Never be punitive.
2. Pharmacotherapy: Two drugs are approved for long-term weight management (sibutramine hydrochloride monohydrate and orlistat).
3. Surgery: Gastroplasties must be considered for a patient with body mass index (BMI) > 50 (and for some with BMIs > 40).

Answered by:
Robert Dent, MDCM, FRCP(C)
Director, Weight Management Clinic
Ottawa Hospital
Ottawa, Ontario

3. Sources of Omega-3

What are good sources of Omega-3 fatty acids to supplement one's diet?

Submitted by:
Larry Barcza, MD
Bradford, Ontario

Omega-3 fatty acids are found in fish, plant foods, Omega-3 eggs, Neilson's Dairy-Oh milk, and supplements. Omega-3 fatty acids found in fish, Omega-3 eggs, and milk are the best sources.

Fish sources include:

- salmon,
- mackerel,
- sardines,
- shellfish,
- trout,
- tuna (albacore),
- herring,
- swordfish, and
- halibut.

Plant sources include:

- sardines/sardine oil,
- ground flax seeds/ flaxseed oil,
- tofu,
- canola oil,
- soybeans/ soybean oil, and
- walnuts/walnut oil.

Omega-3 fatty acids are found in fish oil and flax oil supplements.

A fish oil supplement (not liver oil) is a better choice, as it is absorbed best in the body. Aim for two servings of fish a week or three Omega-3 eggs per week and include the plant sources of Omega-3 fatty acids into your eating plan as often as possible.

Answered by:
Naomi Ross, RD, BSc
Registered dietitian
Life Screening Centres
Toronto, Ontario

4. How is UTI worked up in kids?

I'm confused about guidelines for investigating urinary tract infection in children? Who gets kidney and upper bladder tests? Who gets an ultrasound? Who gets a voiding cystourethrogram?

Submitted by:
Stephanie Popiel, MD, BSc, MSc, CCFP
Perth, Ontario

It is important to distinguish between urinary tract infections (UTIs) that are confined to the bladder and those that affect the kidneys. There is concern that an infection involving the upper urinary tract can cause kidney scarring and lead to kidney failure.

An ultrasound should be ordered for all patients. However, one must be aware that a normal ultrasound does not necessarily rule out vesicouretic reflux from the bladder to the kidneys. Unfortunately, reflux can only be identified with certainty by instilling some dye into the bladder. This requires catheterization or puncturing the bladder with a needle.

In boys, we also have to be sure there is no abnormality of the urethra; therefore, voiding cystourethrogram is performed. This test involves considerable radiation and has a small chance of being falsely negative. The more sensitive test—using isotopes and nuclear medicine imaging—involves less radiation, but can only serve as the first-line investigation for girls because one cannot see the urethra.

If the ultrasound is abnormal, further investigations may be required. Some patients may have a blockage in their urinary tract and will require a nuclear scan with a substance excreted by the kidneys to allow for a functional study of urine flow. This is typically done by mercaptoacetylglycine 3 (MAG3) labelled with 99 m technetium. This marker allows for dynamic scintigraphy and is filtered and secreted by the tubules. With these tests, we can usually assess whether a urologist must be consulted.

In case of a non-febrile bladder infection, particularly in a girl who is a lazy voider, an ultrasound may be reassuring to rule out major abnormalities. More invasive investigations can be withheld until a third bladder infection.

I recommend further investigations for any child that has a UTI with fever or a positive blood culture. This is particularly important for children under one.

Answered by:
Guido Filler, MD, PhD, FRCPC
Professor of pediatrics
Head, division of nephrology, University of Ottawa
Children's Hospital of Eastern Ontario
Ottawa, Ontario

5. When should you use imiquimod?

What are the current indications for the use of imiquimod?

Submitted by:
Ronald N. Koltun, MD, CCFP(EM)
Whitehorse, Yukon

Imiquimod 5% cream is a topical immune response modifier approved in Canada as a treatment for external genital/perianal warts. A randomized, double-blind, vehicle-controlled trial (RCCT) of use for up to 16 weeks showed clearance of condyloma in 50% of patients (33% were male; 72% female).

This year, imiquimod was approved in Canada for the treatment of actinic keratoses based on the results of two RCCTs involving 436 patients with application two times weekly for 26 weeks. Forty-five per cent showed complete clearance versus 3% of the placebo group.

In July 2004, imiquimod was approved in the U.S. for the treatment of superficial basal cell carcinoma in patients for whom surgical removal is "inappropriate". Emerging off-label uses include the treatment of molluscum contagiosum.

Answered by:
Joel DeKoven, MD, MHSc(Tor), ABDerm, FRCPC
Assistant professor
Director, dermatology residency program
University of Toronto
Toronto, Ontario

6. Managing mood disorders

Discuss long-term management of mood disorders.

Submitted by:
Joseph Feldmann, MD, DPM, DPsy, FRCPC
Toronto, Ontario

The goals of long-term depression management are to prevent relapse/recurrence, depression-related morbidity, and disability. Full remission is also a targeted outcome of maintenance treatment.

At least 15% to 30% of depressed patients may experience relapses despite antidepressant maintenance treatment. The common causes of failure include insufficient duration, a low maintenance dose, nonadherence, treatment resistance, difficult-to-treat depression, and missed diagnosis of bipolar disorder.

More than six to eight months or indefinite period of maintenance are required for patients with a history of three or more lifetime episodes of depression, frequent episodes (two or more over a five-year period), chronic episodes, and older patients. It is advisable to maintain the same dose that helps depressed patients improve in acute phase.

Patient education and good therapeutic alliance will improve compliance. Treatment resistant and difficult-to-treat patients need specialized care. The strategies to improve prophylactic efficacy include:

- optimization of doses;
- switching to dual action antidepressants (venlafaxine, mirtazapine);
- combining dissimilar antidepressants; or
- augmenting with lithium carbonate, lamotrigine, or atypical antipsychotics.

Combining psychosocial treatments (*e.g.*, cognitive behavioural therapy, exercise, *etc.*) and medication enhances long-term outcome and can be incorporated where appropriate.

Physicians should also be familiar with suicide risk assessment.

Answered by:
Rajamannar Ramasubbu, MBBS, DPM, MD, MRCPsych, FRCPC, MSC
Assistant professor of psychiatry
Faculty of Medicine, University of Calgary
Calgary, Alberta

7. Overcoming lack of sexual interest

What is needed for menopausal women on hormone replacement therapy who lack sexual interest?

Submitted by:
W.K. Chang, MD
Whitby, Ontario

Lack of sexual interest is acknowledged in over 30% of women. There are no specific changes related to menopause or hormone replacement therapy that would explain a sudden or gradual loss of desire after menopause.

Testosterone supplements have been helpful to women after early surgical menopause, but use after natural menopause lacks scientific support.

Patients who have concerns about their level of sexual interest deserve careful assessments of physical, psychosocial, and relationship factors that can inhibit desire. Poor health, a mood disorder, medication, and stress are important factors that can explain the change.

Focused questions on the woman's fantasies, dreams, and interest in self-pleasure will clarify the effect of the relationship on her sexual interest and will suggest exploring relationship issues.

If this initial assessment does not explain her loss of desire, a hormone screen of total, free, and bioavailable testosterone is appropriate. Results may support a three-month trial of testosterone supplement, with the goal of restoring physiologic levels to the high normal range.

If supplementation does not help, reassess psychosocial and relationship factors.

Answered by:
John Lamont, MD, FACOG, FSOGC, FRCSC
Obstetrician/gynecologist
Active staff, Hamilton Health Sciences-Henderson site
Emeritus professor, McMaster University
Hamilton, Ontario

8. Osteoporosis guidelines

As I order more bone density studies, I see more osteopenia, moderate and severe. Should these women be treated with a bone metabolism regulator or be watched until osteoporosis develops? And if treated, at what dosage?

Submitted by:
Gayle Garber, MD, BSc, MCS
Kelligrews, Newfoundland

The World Health Organization defines osteoporosis as a bone mineral density (BMD) ≤ 2.5 standards below the young adult normal mean value. The definition of osteopenia is T-score < -1 and > -2.5 standard deviations below normal.

Individuals with osteopenia should be evaluated with exclusion of secondary causes of bone loss. In the absence of contraindications, antiresorptive therapy can be initiated.

The Osteoporosis Society of Canada (OSC) guidelines recommend patients with a T-score of ≤ -2.5 be treated to prevent fragility fractures. It is important to note the OSC guidelines also recommend that those patients with a T-score of < -1.5 be actively treated in the presence of a prior fragility fracture or in the presence of one major or two minor risk factors for fracture.

Treatment with antiresorptive therapy is advised for those with a T-score of ≤ -1.5 and a history of fragility fractures or the presence of one major or multiple minor risk factors for fracture. Options include alendronate, 70 mg orally once weekly; risedronate, 35 mg orally once weekly; or raloxifene, 60 mg orally daily.

In those individuals with milder degrees of bone loss, or in whom significant risk factors for fracture are not present, it is important to ensure lifestyle changes are emphasized.

Antiresorptive therapy may be appropriate in the presence of osteopenia and T-scores between -1 and -1.5. If there is evidence of progressive bone loss, I would suggest alendronate, 70 mg on alternate weeks; risedronate, 35 mg weekly; or raloxifene, 60 mg orally once daily.

Answered by:
Aliya Khan, MD, FRCPC, FACP
Associate clinical professor of medicine
Division of endocrinology and geriatrics, McMaster University
Hamilton, Ontario
Chair, Canadian Panel of the International Society for Clinical Densitometry

9. How should you treat osteopenia in women?

How do I treat moderate osteopenia in the post-menopausal woman with no positive family history of osteoporosis? What about the premenopausal woman?

Submitted by:
Gayle Garber, MD, BSc, MCS
Kelligrews, Newfoundland

There is no clear consensus on how to deal with this situation. Age may influence your decision. Early after menopause, peak bone mass is the primary determinant of the bone mineral density (BMD). In the absence of other key risk factors (*e.g.*, family history, previous fracture, smoking, low body mass index [BMI], *etc.*), a young post-menopausal woman with osteopenia would have a low five-year absolute risk for an osteoporotic fracture. She could simply be followed with a BMD two years after menopause. Age, however, is a strong independent risk factor for fractures, regardless of BMD. Therefore, one might favour treatment with antiresorptive therapy in the older age group.

For the premenopausal woman with osteopenia, again in the absence of significant risk factors, patients should be followed closely and encouraged to undertake lifestyle modifications (*e.g.*, exercise, as well as adequate calcium and vitamin D intake). These modifications would apply to post-menopausal women as well.

Answered by:
Michael Starr, MD, FRCPC
Assistant professor of medicine
Division of rheumatology, McGill University
Montreal, Quebec

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10. The scoop on "chicken flu"

How is "chicken flu" transmitted to humans? What are the symptoms? How is it diagnosed? What are the treatments? What is the prognosis?

Submitted by:
Denis Cheung, MD, FAAFP, DABFP, CCFP
Nepean, Ontario

Generally, bird strains of influenza use a slightly different cell sialic acid receptor than human cells. This may be, in part, why bird strains have difficulty infecting humans. Close contact with live chickens or chicken processing is usually required for transmission, although person-to-person spread of H7N1 and H9N2 has been reported.

During the H7N1 outbreak in the Netherlands, poultry workers were at highest risk of infection and the majority of them had conjunctivitis. Respiratory symptoms also occurred, but were less common. In the H5N1 outbreak in Hong Kong in 1997, six of 18 infected people died, but there was no person-to-person transmission.

The diagnosis is best made by culture of fecal material in birds and conjuctival swabs or respiratory secretions in humans. Polymerase chain reaction has also been useful.

The treatment and prevention of highly pathogenic avian influenza includes vaccine, which can now be made rapidly without prolonged egg culture adaptation. Vaccine strains can now be genetically engineered to produce the required vaccine antigens; however, these preparations are not yet available.

In cases where vaccines cannot be made and supplied soon enough, persons with infection can be treated with either of the neuraminidase inhibitors (oseltamivir or zanamivir), if treatment is started within 48 hours of infection. Prevention of influenza can also be achieved with oseltamivir or zanamivir.

Amantadine has long been the chemoprophylactic agent for influenza A, but many of the isolates from this year's H5N1 outbreak in Southeast Asia were amantadine-resistant.

Answered by:
H.G Stiver, MD, FRCPC
Professor of medicine, division of infectious diseases
University of British Columbia
Vancouver, British Columbia

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11. Who should be using ASA?

Should a healthy, 35-year-old man with a family history of heart disease and medication-controlled hypertension be on enteric-coated acetylsalicylic acid (ASA), 81 mg/day, prophylactically?

Submitted by:
Nick Logarakis, MD, FRCSC
Toronto, Ontario

There is no evidence that low-dose ASA would be beneficial for such a young man. The Hypertension Optimal Treatment (HOT) study showed that ASA provides little benefit for men and women over age 50 (a relative risk reduction of approximately 15%); however, the study's rate of events was quite low. In fact, it was so low, the study had to be extended by a year, and even then we only saw about 880 cardiovascular events rather than the 1,100 the study had originally been based on.

The patient in question might benefit from having an extensive assessment of his lipid profile, including low-density lipoprotein and high-density lipoprotein cholesterol levels. This young man may have metabolic syndrome and may be at risk of developing diabetes. Explaining the positive effects of diet and exercise might be beneficial. Dx

Answered by:
Ellen Burgess, MD, FACP, FRCPC
Professor, Hypertension Research Clinic
University of Calgary
Calgary, Alberta